

**THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
LUFKIN DIVISION**

MOTIVA PATENTS, LLC,	§	
	§	
v.	§	CASE NO. 9:18-CV-180-JRG-KFG
	§	LEAD CASE
SONY CORPORATION, et al.	§	
	§	
	§	

**MEMORANDUM OPINION AND ORDER CONSTRUING CLAIM TERMS OF  
UNITED STATES PATENTS NO. 7,292,151, 7,952,483, 8,159,354, 8,427,325, AND  
9,427,659**

Before the Court is the Opening *Markman* Brief (Doc. # 100) filed by Plaintiff Motiva Patents, LLC (“Plaintiff” or “Motiva”). Also before the Court are the Responsive Claim Construction Brief (Doc. # 101) filed by Defendants Sony Corporation, Sony Interactive Entertainment Inc. (collectively, “Sony”), HTC Corporation (“HTC”), and Facebook Technologies, LLC f/k/a Oculus VR, LLC (“Facebook” or “Oculus”) (all, collectively, “Defendants”)<sup>1</sup> as well as Plaintiff’s reply (Doc. # 103).

The Court held a claim construction hearing on July 23, 2019.<sup>2</sup>

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<sup>1</sup> For convenience, the Court herein uses “Defendants” to refer to the Defendant(s) applicable for each particular disputed term.

<sup>2</sup> Prior to the July 23, 2019 hearing, the Court entered a stay as to the Sony Defendants pending settlement. *See* Doc. # 112. The Sony Defendants therefore did not participate in the July 23, 2019 claim construction hearing.

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## I. BACKGROUND

Plaintiff brings suit alleging infringement of United States Patents No. 7,292,151 (“the ’151 Patent”), 7,952,483 (“the ’483 Patent”), 8,159,354 (“the ’354 Patent”), 8,427,325 (“the ’325 Patent”), and 9,427,659 (“the ’659 Patent”) (collectively, “the patents-in-suit”). (See Doc. # 100, Exs. 1–5.) Plaintiff submits that the patents-in-suit relate to “technology that allows the position and orientation of a user’s hands to be tracked and modeled in a virtual display, enabling . . . realistic hand presence [in the virtual world].” Doc. # 100 at 1. The ’151 Patent, titled “Human Movement Measurement System,” issued on November 6, 2007, and bears an earliest priority date of July 9, 2004. The Abstract of the ’151 Patent states:

A system for measuring the position of transponders for testing and training a user to manipulate the position of the transponders while being guided by interactive and sensory feedback through a bidirectional communication link to a processing system for the purpose of functional movement assessment for exercise and physical rehabilitation.

Plaintiff states that the patents-in-suit are related and “share a common specification.” Doc. # 100 at 1. Defendants submit that the ’151 Patent, the ’483 Patent, and related United States Patent No. 7,492,268 (“the ’268 Patent”) have been the subject of *inter partes* reexamination proceedings at the United States Patent and Trademark Office (“PTO”). Doc. # 101 at 1.

## II. LEGAL PRINCIPLES

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

“In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (citation omitted). “In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the ‘evidentiary underpinnings’ of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.” *Id.* (citing 517 U.S. 370).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s invention. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim

language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court's claim construction analysis is substantially guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314–17. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the

language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

*Phillips*, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; see *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes.

*Phillips*, 415 F.3d at 1319–24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 134 S. Ct. 2120. “Indefiniteness must be proven by clear and convincing evidence.” *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

### III. AGREED TERMS

The parties submitted in their May 1, 2019 Joint Claim Construction and Prehearing Statement that they had not agreed on any constructions. Doc. # 89 at 1. Agreements reached during the course of claim construction proceedings are set forth below as part of the discussion of the terms presented by the parties for construction.

### IV. DISPUTED TERMS

#### A. “signals”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.	Sony: No construction necessary  Facebook: “data packaged for transmission”

Doc. # 89, Ex. A at 1; Doc. # 100 at 6. The parties submit that this term appears in Claim 1 of the ’151 Patent, Claims 44 and 48 of the ’483 Patent, Claims 32, 49, 50, 63, and 72 of the ’354 Patent, Claims 1, 2, 32, 49, 50, 63, 72, 85, 89, 94, and 95 of the ’325 Patent, and Claim 45 of the ’659 Patent. Doc. # 89, Ex. A at 1; *see* Doc. # 109, Ex. A at 1.

“Facebook Tech withdraws its previous construction and agrees with Plaintiff and the other Defendants that no construction is needed for this term.” Doc. # 101 at 2. At the July 23, 2019 hearing, the parties agreed that this term should be construed to have its plain meaning.

The Court therefore hereby construes “**signals**” to have its **plain meaning**.

#### B. “remote”

Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary.	Facebook: “located some distance away from the user”



Doc. # 89, Ex. A at 1; Doc. # 100 at 8; Doc. # 101 at 3; *see* Doc. # 109, Ex. A at 1. The parties submit that this term appears in Claim 1 of the '151 Patent, Claims 44 and 48 of the '483 Patent, Claims 32, 49, 50, 63, and 72 of the '354 Patent, Claims 1, 32, 49, 50, 63, 72, 85, 89, and 94 of the '325 Patent, and Claims 45 and 46 of the '659 Patent. Doc. # 89, Ex. A at 1; *see* Doc. # 109, Ex. A at 1.

#### (1) The Parties' Positions

Plaintiff argues that “[b]ecause each claim that requires a ‘remote’ processing system further specifies what it is remote from, because only a single claim further specifies that it must be remote from a user, and because every other claim specifies that it must be remote from the first communication device, ‘remote’ should not be construed to mean remote from a user.” Doc. # 100 at 8.

Defendants respond that Plaintiff is attempting to recapture claim scope that Plaintiff disclaimed during reexamination. Doc. # 101 at 3. In particular, Defendants submit that the patentee expressly defined the term “remote” during reexamination. *Id.* at 5–6. Defendants argue that this express definition cannot be overridden here by claim differentiation. *Id.* at 7.

Plaintiff replies that “[t]he arguments relied on by defendants were made in the context of only a single claim of a single patent, a claim that was cancelled by the Patent Office and that is not at issue in this action.” Doc. # 103 at 1.

#### (2) Analysis

During a reexamination of the '151 Patent, the patentee argued that “Hinckley does not disclose a first hand-held communication device and a processing system remote from the first communication device (limitations recited in independent claims 1, 50).” Doc. # 101, Ex. C, June 15, 2011 Respondent’s Brief at 7. After a Decision on Appeal by the Patent Trial and Appeal

Board, the patentee again later reiterated that “Hinckley . . . does not anticipate claim 1 as the system of Hinckley does not teach the claimed limitations of a processor that determines the movement information of a controller that is *remote* from it. See 1.132 Declaration of Ferguson, paragraph 21.” Doc. # 100, Ex. 8, Respondent’s Submission of New Evidence to Reopen Prosecution at 15.

In that proceeding, Kevin Ferguson, one of the named inventors, declared that “[o]ne of ordinary skill in the art would understand that the term ‘remote’ as the term is used in claim 27 [of the ’151 Patent] means that the claimed processing system is some distance away from the user who is holding both of the hand-held controllers.” Doc. # 100, Ex. 7, Sept. 28, 2012 Ferguson Decl. Under 37 C.F.R § 1.132 at ¶ 38. The word “remote” appears in Claim 1, from which Claim 27 depended.

The examiner subsequently found the claim invalid without discussing the patentee’s declared interpretation regarding “remote.” Doc. # 100, Ex. 9, Oct. 9, 2013 Determination Under 37 C.F.R. 41.77(d) at 6. In a New Decision, the Patent Trial and Appeal Board upheld the examiner’s determination. *See id.*, Ex. 10, New Decision at 10–13.

Plaintiff emphasizes that the examiner did not express any reliance on the declared interpretation regarding “remote.” *See* Doc. # 103 at 6–7. Yet, the examiner did not expressly state any disagreement with the patentee’s interpretation of “remote,” and “the interested public has the right to rely on the inventor’s statements made during prosecution, without attempting to decipher whether the examiner relied on them, or how much weight they were given.” *Fenner Invs., Ltd. v. Cellco P’ship*, 778 F.3d 1320, 1325 (Fed. Cir. 2015).

Likewise, Plaintiff has failed to identify any portion of the New Decision in which the Patent Trial and Appeal Board purportedly rejected the interpretation set forth in the above-

discussed inventor declaration, and the Court finds none. *See* Doc. # 100, Ex. 10, New Decision at 10–13. Further, “an applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well.” *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007). Finally, the patentee’s statements during reexamination are part of the prosecution history, and as a general matter a disclaimer can be found in reexamination proceedings. *See Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017) (noting that a “patentee’s statements during reexamination can be considered during claim construction, in keeping with the doctrine of prosecution disclaimer”) (quoting *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1266 (Fed. Cir. 2012)).

The statements regarding “remote” set forth during reexamination should therefore be considered in the present claim construction proceedings. *See Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) (“Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.”); *see also Phillips*, 415 F.3d at 1316 (“[O]ur cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.”); *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on definitive statements made during prosecution.”); *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1329 (Fed. Cir. 2009) (“[W]e will adopt a definition that is different from the ordinary meaning when the patentee acted as his own lexicographer and clearly set forth a definition of the

disputed claim term in either the specification or prosecution history.”) (citation and internal quotation marks omitted).

Plaintiff properly notes, however, that the prosecution history cited by Defendants addressed the meaning of “remote” in a specific context for distinguishing the “Hinckley” reference.<sup>3</sup> Named inventor Kevin Ferguson declared:

36. One of ordinary skill in the art would understand that because the first and second hand-held controllers of claim 27 [of the ’151 Patent] are “electrically” connected, the claimed processing system that is remote from the first hand-held controller is also remote from the second hand-held controller.

37. One of ordinary skill in the art would understand that the ’151 patent clearly describes a remote processing system that is remote from both the first and second controllers and where the remote processor determines movement information of both.

38. One of ordinary skill in the art would understand that the term “remote” as the term is used in claim 27 [of the ’151 Patent] means that the claimed processing system is some distance away from the user who is holding both of the hand-held controllers.

39. One of ordinary skill in the art would understand that claim 27 requires that the processing system be “remote” from both the first and second hand-held controllers.

40. One of ordinary skill in the art would understand that the processing system of the server tablet in Hinckley is not remote from itself.

Doc. # 100, Ex. 7, Sept. 28, 2012 Ferguson Decl. Under 37 C.F.R. § 1.132 at ¶¶ 36–40. Here,

Claim 1 of the ’151 Patent, for example, recites (emphasis added):

1. A system for tracking movement of a user, comprising:  
a first communication device comprising a transmitter for transmitting signals, a receiver for receiving signals and an output device, said first communication device adapted to be hand-held;

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<sup>3</sup> The Patent Trial and Appeal Board identified the “Hinckley” reference as “Hinckley, Ken, *Synchronous Gestures for Multiple Person and Computers*. Volume 5, Issue 2, pp. 149–158 of the UIST 2003 Symposium on User Interface Software & Technology.” Doc. # 100, Ex. 10, New Decision at 2 n.2.

a processing system, *remote from the first communication device*, for wirelessly receiving said transmitted signals from said first communication device, said processing system adapted to determine movement information for said first communication device and sending data signals to said first communication device for providing feedback or control data; and

wherein said first communication device receives and processes said data signals from said processing system and wherein the output device provides sensory stimuli according to the received data signals.

Although the first communication device is “adapted to be hand-held,” the claim uses the term “remote” with reference to the first communication device rather than with reference to a user. Also, Claim 27 of the ’151 Patent (the claim addressed in the prosecution history relied upon by Defendants) recited:

27. A system according to claim 1, further comprising:

a second communication device, adapted to be hand held, in electrical communication with the first communication device, with the processing system adapted to determine movement information of the second communication device relative to the first communication device.

Thus, the patentee’s arguments addressed remoteness with reference to both the first and second handheld devices, not with reference to a user that might perhaps be holding them. *Cf. Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 991–92 (Fed. Cir. 1999) (finding that prosecution statements were limited to context of particular claims). Despite Defendants’ arguments at the July 23, 2019 hearing, the Court finds no inconsistency between the patentee’s position as to Claim 27 and the context in which “remote” appears in Claim 1.<sup>4</sup> The term “remote” should therefore be interpreted simply as “located some distance away.”

Also of note, Claim 45 of the ’659 Patent recites in relevant part (emphasis added):

45. A wireless video game system for detecting motion, comprising:

a remote processing system for placement at a distance from a user;

....

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<sup>4</sup> See *Forest Labs., Inc. v. Abbott Labs.*, 239 F.3d 1305, 1310 (Fed. Cir. 2001) (“We also construe independent claims consistently with the claims that depend from them. *Wright Med. Tech., Inc. v. Osteonics Corp.*, 122 F.3d 1440, 1445, 43 USPQ2d 1837, 1841 (Fed. Cir. 1997).”).

This explicit recital of “remote” with reference to “a distance *from a user*” provides additional support for not limiting the term “remote” to referring to a distance “from the user.” *Cf. Phillips*, 415 F.3d at 1314 (“To take a simple example, the claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”).

The Court therefore hereby construes “remote” to mean “**located some distance away.**”

**C. “in electrical communication” and “electrically communicate with”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“able to transmit or receive information electrically, including wirelessly”	“in communication / communicate using the flow of electrical current or charge through a wire or contact connection” <sup>5</sup>

Doc. # 89, Ex. A at 2; Doc. # 100 at 9; Doc. # 101 at 8. The parties submit that these terms appear in Claim 27 of the ’151 Patent, Claims 44 and 48 of the ’483 Patent, Claims 63 and 72 of the ’354 Patent, and Claims 2, 63, 72, and 95 of the ’325 Patent. Doc. # 89, Ex. A at 2; *see* Doc. # 109, Ex. A at 1.

(1) The Parties’ Positions

Plaintiff argues that “[e]lectrical’ communication is a general term that in the electronics field that [*sic*] is not limited to wired communication.” Doc. # 100 at 10. Plaintiff also argues that Defendants’ reliance on reexamination proceedings is unavailing, and “Defendants’ position is also contrary to the position that the Sony defendants recently took in front of the Patent Office.” *Id.* at 10–11.

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<sup>5</sup> Defendants previously proposed (Doc. # 89, Ex. A at 2; Doc. # 101 at 8):

Facebook: “in communication / communicate using the flow of electrical current or charge through a wire or contact connection”;

HTC: “in communication / communicate using the flow of electrical current over a wired connection.”

Defendants respond that “the Patentee expressly set forth a definition of ‘electrical communication’ during reexamination of the ’151 Patent” and “stated that an ‘electrical communication’ is not the same as a wireless communication.” Doc. # 101 at 8. Further, Defendants submit that “Plaintiff does not point to a single instance in the specification where the term ‘electrical communication’ or ‘electrically communicate’ refers to wireless communications.” *Id.* at 10–11. Finally, as to a petition for *Inter Partes* Review filed by Sony as to the ’354 Patent, Defendants argue that “the ’354 IPR petition expressly used Plaintiff’s view of claim scope and noted that *if* Plaintiff is right, then the challenged claims of the ’354 Patent must be found invalid.” *Id.* at 11.

Plaintiff replies as to these terms together with the term “remote,” which is addressed above. *See* Doc. # 103 at 1–7.

## (2) Analysis

On one hand, the specification discloses transponders with wireless communication interfaces, and the specification discusses a “radio link circuit.” *See* ’151 Patent at Fig. 7; *see also id.* at 35:18–31 (“radio link circuit”). Disclosure of such embodiments suggests that “electrical communication” might encompass wireless communication.

This potential scope is also consistent with a technical dictionary submitted by Plaintiff that defines “electrical” as “[r]elated to or associated with electricity, but not containing it or having its properties or characteristics,” and that defines “communication” as “[t]he transmission of intelligence between two or more points over wires or by radio . . . .” Doc. # 100, Ex. 11, *McGraw Hill Dictionary of Electrical & Computer Engineering* 102, 108 (2004).

On the other hand, during a reexamination of the ’151 Patent the patentee argued:

Clearly, the tablets of Hinckley are not “electrically” connected as there is no wire or connection of any kind that allows for the exchange or [*sic*, of] electrical charges

or currents. *See* 1.132 Declaration of Ferguson, paragraph 35. Although the tablets of Hinckley are in wireless data communications, they are not in “electrical communication.” *See* 1.132 Declaration of Ferguson, paragraph 41.

Doc. # 100, Ex. 8, Respondent’s Submission of New Evidence to Reopen Prosecution at 21–22.

The patentee submitted a declaration by one the named inventors, Kevin Ferguson, stating:

34. One of ordinary skill in the art would understand that the term “electrical” requires the flow of electrical current or charge through a wire or contact connection.

35. One of ordinary skill in the art would understand that the tablets of Hinckley are not “electrically” connected as there is no wire or contact connection of any kind that allows for the exchange or [*sic*, of] electrical charges or currents.

\* \* \*

41. One of ordinary skill in the art would understand that although the tablets of Hinckley are in wireless data communications, they are not in “electrical communication.”

Doc. # 100, Ex. 7, Sept. 28, 2012 Ferguson Decl. Under 37 C.F.R § 1.132 at ¶¶ 34, 35 & 41. The examiner subsequently found the claims invalid without addressing the patentee’s submitted definition of “electrical.” Doc. # 100, Ex. 9, Oct. 9, 2013 Determination Under 37 C.F.R. 41.77(d) at 6. The Patent Trial and Appeal Board upheld the examiner’s determination. *See id.*, Ex. 10, New Decision at 10–13.

Thus, substantially the same legal principles apply to “electrical” as apply regarding the above-addressed term “remote.” Plaintiff also emphasizes authority that “the totality of the prosecution history . . . must be assessed, not the individual segments,” *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 979 (Fed. Cir. 1999), and “[e]ven if an isolated statement appears to disclaim subject matter, the prosecution history as a whole may demonstrate that the patentee committed no clear and unmistakable disclaimer,” *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1342–43 (Fed. Cir. 2009).



On balance, the patentee’s definition of “electrical” set forth during reexamination is clear and, unlike for the term “remote” addressed above, the patentee’s statements were not confined to a limited context. The patentee’s definition of “electrical” should therefore be given effect in the present claim construction proceedings. *See Edwards Lifesciences*, 582 F.3d at 1329 (“[W]e will adopt a definition that is different from the ordinary meaning when the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history.”) (citation and internal quotation marks omitted); *see also Southwall*, 54 F.3d at 1576; *Phillips*, 415 F.3d at 1316; *Omega Eng’g*, 334 F.3d at 1324.<sup>6</sup>

The Court therefore hereby construes the disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
<b>“in electrical communication”</b>	<b>“in communication using the flow of electrical current or charge through a wire or contact connection”</b>
<b>“electrically communicate with”</b>	<b>“communicate using the flow of electrical current or charge through a wire or contact connection”</b>

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<sup>6</sup> Plaintiff has also cited a Petition for *Inter Partes* Review filed by Sony. In that petition, Sony cited the “Daniel” reference, which discloses wireless communications. *See* Doc. # 100, Ex. 12, Petition for *Inter Partes* Review of U.S. Patent No. 8,159,354 at 59–62. Yet, that discussion adopted Plaintiff’s interpretation for purposes of discussion: “*If* this limitation is as broad as alleged by Motiva, then it is taught by Daniel.” *Id.* at 60 (emphasis modified).

**D. “the output device provides sensory stimuli,” “sensory stimuli delivered through the output device,” “sensory stimuli . . . delivered through the output device,” and “output device for providing feedback stimuli”**

<p align="center"> <b>“the output device provides sensory stimuli”</b>  <b>“sensory stimuli delivered through the output device”</b>  <b>“sensory stimuli . . . delivered through the output device”</b>            (’151 Patent, Claim 1; ’483 Patent, Claims 44, 48; ’354 Patent, Claims 32, 49, 50, 63, 72;            ’325 Patent, Claims 1, 32, 49, 50, 63, 72, 85, 89, 94, 96, 98)         </p>	
<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.	HTC: “the output device is capable of providing at least two of aural, visual, and tactile stimuli”
<p align="center"> <b>“output device for providing feedback stimuli”</b>            (’151 Patent, Claim 32)         </p>	
<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.	HTC: “output device capable of providing at least two excitation settings”

Doc. # 89, Ex. A at 3 & 6; Doc. # 100 at 11; Doc. # 101 at 12; *see* Doc. # 109, Ex. A at 1–2 & 3.

(1) The Parties’ Positions

Plaintiff argues that “HTC’s proposed construction is contradicted by the claim language itself and examples in the specification.” Doc. # 100 at 11–12.

In response, as to “output device for providing feedback stimuli,” “HTC withdraws its previous construction and agrees with Plaintiff and the other Defendants that no construction is needed for this term.” Doc. # 101 at 2; *see id.* at 12 n.8.

As to the “sensory stimuli” terms, HTC responds that “‘stimuli’ is the plural form of ‘stimulus’ and invariably means ‘two or more stimulus.’” Doc. # 101 at 12. HTC also submits that the specification is consistent with HTC’s interpretation. *See id.* at 13–15.

Plaintiff replies by reiterating that “certain claims expressly use the word ‘stimuli’ to refer to a single type of stimuli.” Doc. # 103 at 8. Plaintiff also submits that “Motiva nowhere conceded that ‘sensory’ necessarily refers to multiple senses, and HTC provides no support for that implausible position.” *Id.*

## (2) Analysis

As to “output device for providing feedback stimuli,” the parties no longer dispute this term. Doc. # 101 at 2; *see id.* at 12 n.8; *see also* Doc. # 109, Ex. A at 3. The Court construes this term to have its plain meaning.

As to the remaining terms, Claim 1 of the ’151 Patent, for example, recites (emphasis added):

1. A system for tracking movement of a user, comprising:
  - a first communication device comprising a transmitter for transmitting signals, a receiver for receiving signals and *an output device*, said first communication device adapted to be hand-held;
  - a processing system, remote from the first communication device, for wirelessly receiving said transmitted signals from said first communication device, said processing system adapted to determine movement information for said first communication device and sending data signals to said first communication device for providing feedback or control data; and
  - wherein said first communication device receives and processes said data signals from said processing system and wherein *the output device provides sensory stimuli* according to the received data signals.

On its face, the word “stimuli” is the plural of “stimulus” and accordingly requires more than one stimulus. Nothing in this claim is contrary to such an interpretation. Plaintiff has cited Claims 5, 7, and 8 of the ’151 Patent, which depend from above-reproduced Claim 1 and which recite (emphasis added):

3. The system of claim 1, wherein the first communication device further comprises:

a first visual display for providing an interactive interface for the user.

4. The system of claim 3, further comprising:

a display device in communication with the processing system for providing sensory stimuli for the user according to the transmitted signals from the first communication device.

5. The system of claim 4, wherein the display device indicates the movement direction of the first communication device, which further comprises a second visual display for providing *visual stimuli* to a user in combination with the first visual display.

\* \* \*

7. The system of claim 1, wherein:

the output device provides *audible stimuli* to the user.

8. The system of claim 1, wherein:

the output device provides *tactile stimuli* to the user.

These claims do not compel reading “stimuli” to mean “stimulus.” Instead, these claims merely provide for systems that must include a particular type of stimuli among the multiple sensory stimuli of Claim 1.

HTC has *not* shown, however, that multiple stimuli must necessarily be of different *types*. That is, the “stimuli” in above-reproduced Claim 1 could be multiple stimuli of a particular type, such as multiple aural stimuli, multiple visual stimuli, *or* multiple tactile stimuli. The extrinsic dictionary definition submitted by HTC does not suggest otherwise. *See* Doc. # 101, Ex. G, *Merriam-Webster’s Collegiate Dictionary* 1226 (11th ed. 2004) (defining “stimulus” as “something that rouses or incites to activity”).

HTC notes that the specification repeatedly refers to “deliver[ing] aural, visual, *and* tactile stimuli.” ’151 Patent at 16:27–29, 17:34–36, 18:9–20 & 18:62–19:11 (emphasis added). In some cases, “[c]onsistent use of a term in a particular way in the specification can inform the proper

construction of that term.” *Wi-LAN USA, Inc. v. Apple Inc.*, 830 F.3d 1374, 1382 (Fed. Cir. 2016). On balance, however, the applicable principle here is that “persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments.” *Phillips*, 415 F.3d at 1323.

Finally, HTC has cited Figure 7 of the ’151 Patent, which illustrates an output device capable of outputting multiple different types of stimuli (through use of a light emitting diode, a vibrator motor, and an audio annunciator), but “patent coverage is not necessarily limited to inventions that look like the ones in the figures.” *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007).

The Court therefore hereby expressly rejects HTC’s proposed construction, and no further construction is necessary. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *see also Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

The Court accordingly hereby construes **“the output device provides sensory stimuli,” “sensory stimuli delivered through the output device,” “sensory stimuli . . . delivered through the output device,”** and **“output device for providing feedback stimuli”** to have their **plain meaning**.

**E. “calculate a displacement vector from said movement information”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“determine a quantity specifying a magnitude and direction of movement from said movement information” <sup>7</sup>	HTC: “calculate the linear distance from the position of the first communication device to the position of the second communication device based on the movement information for the first and second communication devices” <sup>8</sup>

Doc. # 89, Ex. A at 3; Doc. # 100 at 12; Doc. # 109, Ex. A at 2. The parties submit that this term appears in Claim 28 of the ’151 Patent. Doc. # 89, Ex. A at 3; Doc. # 109, Ex. A at 2.

(1) The Parties’ Positions

Plaintiff argues that “Motiva’s proposed construction does nothing more than explain what a displacement vector is for the jury, since that term is not necessarily going to be within the typical understanding of a lay person.” Doc. # 100 at 12–13. As to HTC’s proposal, Plaintiff argues that “there is no reason why that distance would have to be reported as a linear distance,” and “[t]here is no requirement that the displacement vector necessarily be based on the movement information for the first device and be based on the movement information for the second device.” *Id.* at 13.

HTC responds that “HTC’s refined construction reflects the term’s ordinary meaning in the art within the context of the ’151 Patent and is consistent with the specification.” Doc. # 101 at 17.

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<sup>7</sup> Plaintiff previously proposed: “Displacement vector: ‘a quantity specifying a magnitude and direction of movement.’” Doc. # 89, Ex. A at 3.

<sup>8</sup> HTC previously proposed: “determine the linear distance and direction from the position of the first communication device to the position of the second communication device based on the movement information for both the first and second communication devices.” Doc. # 89, Ex. A at 3.

Plaintiff replies that “HTC still has provided no good reason to require a ‘linear’ distance,” “[n]or has HTC provided a good reason to require the displacement vector to be the distance from the first device to the second device.” Doc. # 103 at 8.

## (2) Analysis

Claim 28 of the ’151 Patent depends from Claim 27, which in turn depends from Claim 1.

Claims 1, 27, and 28 of the ’151 Patent recite (emphasis added):

1. A system for tracking movement of a user, comprising:

*a first communication device* comprising a transmitter for transmitting signals, a receiver for receiving signals and an output device, said first communication device *adapted to be hand-held*;

a processing system, remote from the first communication device, for wirelessly receiving said transmitted signals from said first communication device, said processing system adapted to determine movement information for said first communication device and sending data signals to said first communication device for providing feedback or control data; and

wherein said first communication device receives and processes said data signals from said processing system and wherein the output device provides sensory stimuli according to the received data signals.

\* \* \*

27. A system according to claim 1, further comprising:

*a second communication device, adapted to be hand held*, in electrical communication with the first communication device, with the processing system adapted to *determine movement information of the second communication device relative to the first communication device*.

28. A system according to claim 27, wherein said processing system is adapted to determine movement information for both said first and second communication devices and to *calculate a displacement vector from said movement information*.

The claims thus recite that the first and second communication devices are handheld, that the processing system determines movement information for both the first and second communication devices, and that the processing system uses movement information to calculate a displacement vector. The specification discloses:

In one embodiment, this invention proposes to elicit movement strategies based on the deployment of *at least two transponders that define the endpoints of a movement vector whose relative translation and rotation is measured* and evaluated for the assessment of functional movement capability, including but not limited to, limb range of motion and its control thereof, limb strength conditioning, and overall proprioception and hand-eye coordination skills, and overall body movement.

\* \* \*

. . . [O]ne embodiment of the present invention is comprised of:

1) a means to create a single movement vector whose endpoints are defined by the locations of at least two transponders, wherein, the expansion and contraction of the vector's length is calculated, analyzed, and reported in essentially real-time; . . . .

'151 Patent at 3:34–42 & 4:3–7 (emphasis added).

None of the disclosures cited by Defendants supports Defendants' proposal of defining a "displacement vector" as a linear distance. Rather, the above-reproduced disclosures refer to *relative* movement, such as movement of the second communication device relative to the first communication device, which is also recited in above-reproduced claim 27. *See id.* ("relative translation and rotation"; "the expansion and contraction of the vector's length is calculated, analyzed, and reported").

This understanding is consistent with a technical dictionary definition submitted by Plaintiff that defines "vector" as: "A quantity that has both magnitude and direction. Vectors commonly are represented by a line segment with a length that represents the magnitude and an orientation in space that represents the direction." Doc. # 100, Ex. 14, *Modern Dictionary of Electronics* 1099 (6th ed. 1984).

Plaintiff has also submitted a general-purpose dictionary that includes a definition of "displacement" as "[a] vector, or the magnitude of a vector, from the initial position to a subsequent position assumed by a body." *Id.*, Ex. 13, *The American Heritage Dictionary of the English*



*Language* 380 (1981). This dictionary defines “vector” as “[a] quantity completely specified by a magnitude and a direction.” *Id.* at 1418.

Defendants have submitted a technical dictionary definition of “displacement” as meaning “[t]he linear distance from the initial to the final position of an object moved from one place to another, regardless of the length of path followed.” Doc. # 101, Ex. D, *McGraw-Hill Dictionary of Engineering* 152 (1997). A technical treatise submitted by Defendants defines “displacement” as “the straight-line distance between two points, along with the *direction* from the starting point to the final position.” *Id.*, Ex. E, Jerry D. Wilson, et al., *College Physics* 35 (6th ed. 2007). Thus, Defendants’ extrinsic evidence is consistent with understanding a displacement vector, in the context of the patents-in-suit, as referring to movement of an object relative to another object.

Finally, although the claim requires that the processing system must be adapted to “determine movement information for *both* said first and second communication devices and to calculate a displacement vector from said movement information,” Defendants have not shown that this limitation requires determining separate movement information for each of the devices. In other words, Defendants have not shown there must be movement information for the first communication device and separate movement information for the second communication device.

The Court therefore hereby construes **“calculate a displacement vector from said movement information”** to mean **“determine, from said movement information, a quantity specifying a magnitude and direction of movement.”**

**F. “reference vector position”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“a reference position defined by a quantity specifying a magnitude and direction”	HTC: Indefinite

Doc. # 89, Ex. A at 4; Doc. # 100 at 13; Doc. # 101 at 17; Doc. # 109, Ex. A at 2. The parties submit that this term appears in Claim 29 of the '151 Patent. Doc. # 89, Ex. A at 4; Doc. # 109, Ex. A at 2.

(1) The Parties' Positions

Plaintiff argues: “[A] ‘vector’ is simply a quantity specifying a magnitude and a direction. A displacement vector describes the magnitude and direction of a displacement. A reference vector position describes the magnitude and direction of a reference position. There is nothing indefinite about this term.” Doc. # 100 at 14.

HTC responds that “[r]eference vector position’ is indefinite because this phrase has no commonly accepted technical definition, and the scope of the term is unclear in light of the intrinsic evidence and Plaintiff’s proposed construction.” Doc. # 101 at 17.

Plaintiff replies that “[a] position in space can certainly be described by a vector.” Doc. # 103 at 9.

(2) Analysis

At the July 23, 2019 hearing, Plaintiff urged that a person of ordinary skill in the art would understand the term “reference *vector position*” as referring to a reference *position vector*. Plaintiff cited a treatise that states “a position vector . . . is a vector that extends from a reference point (usually the origin of a coordinate system) to the object.” Doc. # 100, Ex. 29, David Halliday & Robert Resnick, *Fundamentals of Physics* 54 (5th ed. 1997). Plaintiff’s position is inconsistent with the context in which the term “reference vector position” appears in the claim.

Claim 29 of the '151 Patent recites (emphasis added):

29. A system according to claim 28, wherein said processing system is adapted to compare said calculated displacement vector to a *reference vector position* and to calculate a numerical result.

This recital of comparing a “reference vector position” with a “displacement vector” demonstrates that the term “reference vector position” refers to movement rather than merely position. The term “reference vector position” is perhaps inartful. Whereas a “vector” is a quantity that has *magnitude and direction*, the term “position” can be defined as “*location . . . with respect to a chosen reference point that we can consider to be the origin of a coordinate system.*” Doc. # 101, Ex. F, Raymond A. Serway, et al., *Physics for Scientists & Engineers* 24 (2004) (emphasis added).

Nonetheless, the specification discusses guiding a user to perform a movement correctly by providing the user with feedback about the degree to which the user’s movement deviates from a reference movement. *See* ’151 Patent at Fig. 3C (“Reference Movement Trajectory”); *see also id.* at 4:50–54 (“This sensory interface is excited at a rate, repetition, or pattern proportional to the pose error of the transponders’ movement trajectory.”); *id.* at 4:64–67 (“modulation of the rotational properties of a vibrator motor proportional to the pose error of the transponders’ movement vector compared to the reference movement trajectory”); *id.* at 10:16–19 (“The present invention provides a practical, versatile measurement tool for the assessment of the user’s manipulation strategy of the transponder 10 or transponders along a reference movement trajectory.”); *id.* at 14:65–67 (“the transponders are continually manipulated along the reference movement trajectory to the best of the user’s skill and fidelity”); *id.* at 15:10–11 (“the conformity error between the actual and reference movement trajectory is calculated periodically”).

On balance, in context, the term “reference vector position” is readily understandable as referring to the magnitude and direction of a reference movement. Defendants have therefore failed to demonstrate that the disputed term lacks “reasonable certainty.” *Nautilus*, 572 U.S.

at 910; *see Sonix*, 844 F.3d at 1377 (“Indefiniteness must be proven by clear and convincing evidence.”).

The Court accordingly hereby construes **“reference vector position”** to mean **“a reference movement defined by a quantity specifying a magnitude and direction.”**

**G. “movement information” and “motion information”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
“information about changes in position and/or orientation”	No construction necessary.

Doc. # 89, Ex. A at 4. The parties submit that these terms appear in Claims 1, 27, 28, and 32 of the ’151 Patent, Claims 44 and 48 of the ’483 Patent, Claims 32, 49, 50, 63, and 73 of the ’354 Patent, and Claims 1, 2, 5, 6, 18, 20, 49, 50, 58, 64, 73, 85, 93, 94, and 96 of the ’325 Patent. Doc. # 89, Ex. A at 4; *see* Doc. # 109, Ex. A at 2.

“Motiva agrees with defendants’ position that these terms need not be construed.” Doc. # 100 at 14. Defendants respond by noting that “Plaintiff has withdrawn its previous construction and agrees with Defendants that no construction is needed for these terms.” Doc. # 101 at 2. At the July 23, 2019 hearing, the parties agreed that these terms should be construed to have their plain meaning.

The Court therefore hereby construes **“movement information”** and **“motion information”** to have their **plain meaning**.

**H. “[receive the signals transmitted by the transmitter of the first hand-held communication device,] to determine [movement/position/acceleration] information for each of the respective communication devices”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.	Facebook/HTC: “to determine movement / position / acceleration information for both communication devices based on the signals transmitted by the first communication device”

Doc. # 89, Ex. A at 5–6; Doc. # 100 at 14; Doc. # 101 at 19; Doc. # 109, Ex. A at 2–3. The parties submit that this term appears in Claims 44, 45, and 48 of the ’483 Patent, Claims 63, 64, and 73 of the ’354 Patent, and Claims 63, 64, and 73 of the ’325 Patent. Doc. # 89, Ex. A at 5–6; *see* Doc. # 109, Ex. A at 2–3.

(1) The Parties’ Positions

Plaintiff argues that “[t]his claim language contains ordinary words, such as ‘to determine,’ that will be easily understood by the jury.” Doc. # 100 at 14. Plaintiff further argues: “In this claim language, the word ‘to’ is used three times to set forth three things that the processing system must be adapted to do. It is not used to tie the ‘determine’ clause and the ‘receive’ clause together in the way that HTC and Oculus’s presentation of the claim language suggests, and as their proposed construction would require.” *Id.* at 15.

Defendants respond that “[a]s stated in the plain language of the claims, the processing system is adapted to receive signals from the transmitter of the first hand-held communication device—the second device is not mentioned—and to determine the [movement/position/acceleration] for each of the respective communication devices based on the received signals from the first communication device.” Doc. # 101 at 19.

Plaintiff replies: “Motiva has explained exactly what the word ‘to’ does in the claim language—it is used three times to identify what the processing system must be adapted to do; it is not used to imply ‘based on’ as HTC and Oculus continue to argue.” Doc. # 103 at 9.

(2) Analysis

Claim 44 of the ’483 Patent, for example, recites (emphasis added):

44. A system for a user to play a video game, comprising:
- a first hand-held communication device comprising:
    - a transmitter for transmitting signals;
    - a receiver for receiving signals; and
    - an output device;
  - a second hand-held communication device adapted to electrically communicate with the first communication device, and adapted for being attached to, in contact with, or held by the user, the second hand-held communication device comprising a transmitter for transmitting signals; and
    - a processing system, remote from the first hand-held communication device, adapted to wirelessly receive the signals transmitted by the transmitter of the first handheld communication device, to determine movement information for each of the respective communication devices, and to send data signals to the receiver to provide feedback data to the user;*
    - an interactive interface such that the movement information of the first hand-held communication device controls the movement of at least one object in a computer generated virtual environment;
    - wherein the first hand-held communication device is adapted to receive and process the received data signals and generate sensory stimuli for the user, based on the received data signals, the sensory stimuli delivered through the output device;
    - wherein the first hand-held communication device is further comprised of a user input device adapted for communication with the processing system through the transmitter; and
    - wherein the user input device is adapted for calibrating the first communication device to establish a reference position.

Defendants’ proposal is inconsistent with the context provided by surrounding claim language. The limitation at issue in above-reproduced Claim 44 of the ’483 Patent does *not* recite that the information for both communication devices is based on the signals transmitted by the first communication device. Instead, the language that has been presented as a disputed term actually spans distinct requirements as to the processing system. The limitation requires “a processing

system, remote from the first hand-held communication device,” that is “adapted”: (1) “to wirelessly receive the signals transmitted by the transmitter of the first handheld communication device”; (2) “to determine movement information for each of the respective communication devices”; and (3) “to send data signals to the receiver to provide feedback data to the user.” Defendants have failed to show how this literal reading of the claim language purportedly fails to “give[] meaning to all the terms of the claim.” *See Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). The different language in Claim 50 of the ’354 Patent and Claim 50 of the ’325 Patent, cited by Defendants (Doc. # 101 at 21), does not compel otherwise.

The Court therefore hereby expressly rejects Defendants’ proposal of determining information for both communication devices “based on the signals transmitted by the first communication device.” No further construction is necessary. *See O2 Micro*, 521 F.3d at 1362; *see also Finjan*, 626 F.3d at 1207 (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1319 (Fed. Cir. 2016) (“[A] district court’s duty at the claim construction stage is, simply, the one that we described in *O2 Micro* and many times before: to resolve a dispute about claim scope that has been raised by the parties.”).

The Court accordingly hereby construes “[**receive the signals transmitted by the transmitter of the first hand-held communication device,**] to determine [**movement/position/acceleration**] information for each of the respective communication devices” to have its **plain meaning**.

**I. “one or more software routines executing on the processing system to . . . output control data for communication to the remote processing system”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary	HTC: “one or more software routines in the first hand-held game controller whose result includes . . . a command for controlling operations of the remote processing system”

Doc. # 89, Ex. A at 6; Doc. # 100 at 16; Doc. # 101 at 21; Doc. # 109, Ex. A at 3. The parties submit that this term appears in Claim 45 of the ’659 Patent. Doc. # 89, Ex. A at 6; Doc. # 109, Ex. A at 3.

On July 22, 2019, the parties informed the Court that HTC is no longer pursuing its proposed construction. At the July 23, 2019 hearing, the parties confirmed their agreement that this term can be given its plain meaning.

The Court therefore hereby construes **“one or more software routines executing on the processing system to . . . output control data for communication to the remote processing system”** to have its **plain meaning**.

**J. “one or more software routines executing on the processing system to . . . output data for communication to the remote processing system for controlling motion of a [first/second] virtual object . . . where the motion of the [first/second] virtual object is in proportion with the motion of the [first/second] hand-held game controller”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.	HTC: “one or more software routines in the first / second hand-held game controller whose result includes . . . a command for instructing the remote processing system to move a first / second virtual object proportional to the motion of the first / second hand-held game controller”



Doc. # 89, Ex. A at 7; Doc. # 101 at 23; Doc. # 109, Ex. A at 3–4. The parties submit that this term appears in Claims 45 and 46 of the '659 Patent. Doc. # 89, Ex. A at 7; Doc. # 109, Ex. A at 3–4.

On July 22, 2019, the parties informed the Court that HTC is no longer pursuing its proposed construction. At the July 23, 2019 hearing, the parties confirmed their agreement that this term can be given its plain meaning.

The Court therefore hereby construes **“one or more software routines executing on the processing system to . . . output data for communication to the remote processing system for controlling motion of a [first/second] virtual object . . . where the motion of the [first/second] virtual object is in proportion with the motion of the [first/second] hand-held game controller”** to have its **plain meaning**.

**K. “user input device”**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
No construction necessary.	HTC: “a device on the communication device / controller for user data entry”

Doc. # 89, Ex. A at 8; Doc. # 100 at 17; Doc. # 101 at 25; Doc. # 109, Ex. A at 4. The parties submit that this term appears in Claims 44 and 48 of the '483 Patent, Claims 56, 57, 63, and 72 of the '354 Patent, Claims 1, 17, 32, 48, 49, 50, 54, 56, 57, 63, 69, 72, 82, 85, 89, 91, 94, and 105 of the '325 Patent, and Claim 45 of the '659 Patent. Doc. # 109, Ex. A at 4.

(1) The Parties’ Positions

Plaintiff argues that “[i]t is not clear what HTC considers to be ‘user data entry,’” and “HTC is also wrong that the user input device must be ‘on the communication device.’” Doc. # 100 at 17.

HTC responds that its proposed construction “follows from both the specification and file history, which consistently emphasize that a ‘user input device’ in the context of the asserted patents is a device on the controller for the user to enter data.” Doc. # 101 at 25.

Plaintiff replies that “HTC primarily relies on prosecution statements that were rejected by the Patent Office in support of its construction.” Doc. # 103 at 10.

## (2) Analysis

Claim 44 of the ’483 Patent, for example, recites (emphasis added):

44. A system for a user to play a video game, comprising:
- a first hand-held communication device comprising:
    - a transmitter for transmitting signals;
    - a receiver for receiving signals; and
    - an output device;
  - a second hand-held communication device adapted to electrically communicate with the first communication device, and adapted for being attached to, in contact with, or held by the user, the second hand-held communication device comprising a transmitter for transmitting signals; and
  - a processing system, remote from the first hand-held communication device, adapted to wirelessly receive the signals transmitted by the transmitter of the first handheld communication device, to determine movement information for each of the respective communication devices, and to send data signals to the receiver to provide feedback data to the user;
  - an interactive interface such that the movement information of the first hand-held communication device controls the movement of at least one object in a computer generated virtual environment;
  - wherein the first hand-held communication device is adapted to receive and process the received data signals and generate sensory stimuli for the user, based on the received data signals, the sensory stimuli delivered through the output device;
  - wherein the first hand-held communication device is further comprised of a *user input device* adapted for communication with the processing system through the transmitter; and
  - wherein the *user input device* is adapted for calibrating the first communication device to establish a reference position.

Nothing in this claim language appears to compel the interpretation of “user input device” proposed by Defendants.

The specification discloses that “[i]n the preferred embodiment, the switch I/O circuit uses a SPST push button switch for *user input* to control the system’s operational states, start and stop program execution, and function as feedback input to the program.” ’151 Patent at 35:32–34 (emphasis added). Alternatively, the specification also discloses a “Touch Screen.” *Id.* at Fig. 7; *see id.* at 34:52–54 (“In the preferred embodiment, the graphic LCD and touch screen circuit is the primary user input device for database management for an interactive transponder configuration.”); *see also* ’325 Patent at Cl. 11 (“wherein the user input device is a touch screen display for accepting input from the user”).

The specification also refers to “an input device *resident on* the transponder” and “user *data entry* of an input device *resident on* the interactive transponder.” ’151 Patent at 5:20–26 & 5:33–36 (emphasis added). As to Defendants’ proposal of “data entry,” this is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323.

Further, Claim 45 of the ’659 Patent explicitly recites “a user input device on the exterior of the first hand-held game controller.” This claim thus implies that a user input device is not necessarily “on” the controller. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1237 (Fed. Cir. 2016) (“Construing a claim term to include features of that term already recited in the claims would make those expressly recited features redundant.”). Also of note, the specification discloses that “[t]he present invention provides a practical, versatile measurement tool for the assessment of the *user’s manipulation strategy of the transponder 10 or transponders* along a reference movement trajectory.” ’151 Patent at 10:16–19 (emphasis added); *see id.* at 3:19–22 (“the interactive transponder is primarily held in the hand to facilitate more complex user input”).

Defendants submit that during an *inter partes* reexamination of related United States Patent No. 7,492,268 (“the ’268 Patent”), the patentee stated that the specification “clearly describes (and claims) the ‘user input device’ as a separate *part or component* of the ‘first communication device’ – i.e., the ‘user input device’ is never described as the controller itself.” Doc. # 100, Ex. 15, Nov. 30, 2011 Respondent’s Brief at 11–12. The patentee further stated:

Consistent with the Examiner’s position that the “user input device” as described in the ’268 patent is a “device such as a button or switch,” the specification of the ’268 patent clearly describes the “user input device” as some sort of manually controlled input device “*resident on*” the controller that the user manipulates to control the system. *See, e.g.*, ’268 patent, col. 34, ll. 6–24 (describing the preferred embodiment of a user input device as a LCD touch screen); ’268 patent, Fig. 7 (showing the “user I/O” as a LCD touch screen or switch); ’268 patent, col. 5, ll. 21–26, 33–36 (discussing “user programmer entry of an input device resident on the interactive transponder”).[fn1]

[fn1: The Requester points to certain portions of the ’268 specification arguing that motion detected by accelerometer in the controller relates to “user input,” however these references do not relate to the “user input *device*” which is described in other portions of the specification. Furthermore, as discussed by the Examiner in the Action Closing Prosecution, the motion detection devices of the controller described in the ’268 patent are separate devices from the “user input device”. *See*, Action Closing Prosecution, pg. 5; *see e.g.*, ’268 patent, Fig. 7 showing accelerometer separately from the user input device.]

*Id.* at 12.

These statements during reexamination are part of the prosecution history of the related ’268 Patent. *Aylus*, 856 F.3d at 1360 (“[P]atentee’s statements during reexamination can be considered during claim construction, in keeping with the doctrine of prosecution disclaimer.”) (quoting *Krippelz*, 667 F.3d at 1266). Further, at least in some cases, “[a] statement made during prosecution of related patents may be properly considered in construing a term common to those patents, regardless of whether the statement pre- or post-dates the issuance of the particular patent at issue.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1343 (Fed. Cir. 2015) (considering statements made by patentee during prosecution of continuation applications). The

'268 Patent resulted from a continuation of the '151 Patent. The '268 Patent, the '151 Patent, and the other patents-in-suit all share a common specification.

Nonetheless, as Plaintiff argues, these statements by the patentee do not warrant a narrow construction of “user input device” because the PTO rejected Plaintiff’s arguments, as set forth below. *See* Doc. # 100, Ex. 16, Decision on Appeal at 5–8.

Defendants urge that Plaintiff’s argument should be unavailing because “[a]n applicant’s argument made during prosecution may lead to a disavowal of claim scope even if the Examiner did not rely on the argument.” *Seachange Int’l, Inc. v. C-Cor Inc.*, 413 F.3d 1361, 1374 (Fed. Cir. 2005); *see Microsoft*, 357 F.3d at 1350 (“a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

Here, however, the PTO *expressly* rejected the arguments cited here by Defendants, namely the patentee’s arguments regarding the “Foxlin” reference (United States Patent Application Publication No. 2002/0024675). The Patent Trial and Appeal Board stated (emphasis added):

Foxlin discloses a “head-worn tracking device” which forms part of a system used for “intuitive interaction techniques which exploit proprioception” (Foxlin, Abstract) and is a “fully integrated wearable [Virtual Reality] system” (*id.* at 3: ¶0058.) Head-worn tracking device 12 is described as including a headset or head-worn display 15 and a head orientation tracker 30. (*Id.*) Head-worn tracking device 12 may also include a series of microphones 80, 82, 84 incorporating ultrasonic pulse detection circuits and providing an “ultrasonic range finder” function. (*Id.* at 4: ¶0074; *see also* Fig. 1.) *The head-worn tracking device allows for the motion of a user’s head to influence images displayed to a wearer of the device.* (E.g., *id.* at 6: ¶0100.) Foxlin explains that its disclosed system may be used as part of a portable virtual reality “tennis game or training system” (*id.* at 8: ¶0125) or for other type of activities (*id.* at 8: ¶0126): . . . any other application known or not yet known which requires tracking of a user’s head and one or more limbs or limb-mounted devices.

*In our view, a person of ordinary skill in the art would have readily understood that Foxlin’s head-worn tracking device constitutes a device which receives user input and is thus a “user input device” when the term is afforded its ordinary meaning.* That understanding is not seemingly in dispute. [fn: Indeed, at oral argument, Motiva expressed, through its representative, that it was also of the view that,

outside the context of the '268 Patent, one with ordinary skill in the art would have appreciated that Foxlin's headset provides for user input and thus generally constitutes a user input device.] . . .

Motiva first submits that the specification of the '268 Patent gives a special meaning to the term "user input device." In particular, as was advanced in oral argument and as laid out in its Brief (Resp. Br., p. 12.), *Motiva contends that a "user input device," according to the claims, must be narrowly construed as constituting a manually controlled input device, such as a LCD touch screen or switch, that is "resident on" a controller or communication device for controlling the system.* \* \* \*

Here, we do not discern that the '268 Patent provides any clear and explicit lexicographic definition of the term "user input device." Indeed, rather than direct to us to any such definition, Motiva is content to rely simply on depictions and descriptions of various preferred embodiments of the invention. Yet, mere drawings or description of embodiments, even if preferred, do not operate to limit the meaning of a claim term. *See [Prima Tek II L.L.C. v. Polypap, S.A.R.L., 318 F.3d 1143, 1148 (Fed. Cir. 2003)]; see also E-Pass Technologies, Inc. v. 3Com Corp, 343 F.3d 1364, 1369 (Fed. Cir. 2003).* While the '268 Patent may contemplate a "LCD and touch screen" ('268 Patent, 34:6–8) or a "pushbutton switch" (*id.* at 34:52–57) as exemplary forms of a "user input device," that is insufficient to imbue the term with a special meaning disassociated from its ordinary and customary meaning. *We therefore reject Motiva's argument in that regard.*

Doc. # 100, Ex. 16, Decision on Appeal at 5–7 (emphasis added).

The Court therefore hereby expressly rejects HTC's proposed construction. *See Vertical Tank, Inc. v. BakerCorp*, No. 1:18-CV-145-LJO-JLT, 2019 WL 2207668, \*11–\*12 (E.D. Cal. May 22, 2019) (" . . . [c]ourts have refused to find a disclaimer was made when the purported disclaimer was *rejected* by the patent office") (citing four district court decisions across four separate districts); *see, e.g., Abbott Labs. & Surmodics, Inc. v. Church & Dwight Co., Inc.*, No. 07 C 3428, 2008 WL 5387848, at \*8 (N.D. Ill. Dec. 22, 2008) (discussing *Microsoft*, 357 F.3d at 1350, and stating: "Finding disclaimer based on statements ignored by a patent examiner is not, however, the same as finding disclaimer based on a proposed claim construction that the PTO expressly

rejected.”). No further construction is necessary. *See O2 Micro*, 521 F.3d at 1362; *see also Finjan*, 626 F.3d at 1207; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes “**user input device**” to have its **plain meaning**.

## V. CONCLUSION

The above-cited claim terms of the patents-in-suit shall be construed in accordance with this Order.

**SIGNED this the 20th day of August, 2019.**

A handwritten signature in black ink, appearing to read "Keith F. Giblin", written over a horizontal line.

KEITH F. GIBLIN  
UNITED STATES MAGISTRATE JUDGE